ABSTRACT

A cold-cathode tube lighting device uniformly lights a plurality of cold-cathode tubes using a common power source, and maintains the luminance of each cold-cathode tube uniformly in the longitudinal direction thereof at high precision. A first block converts a direct-current voltage to one pair of alternating-voltages. Since leakage impedances of step-up transformers are low, the first block functions as one pair of low-impedance power sources. Each second block is connected to each cold-cathode tube. A ballast inductor stabilizes tube current by resonating with a matching capacitor during lighting of the cold-cathode tube. A combined impedance of the matching capacitor and a peripheral stray capacitance is matched with an impedance of the ballast inductor, for each cold-cathode tube. Since a delay circuit shifts phases of two pulse waves with respect to each other, a phase difference between the alternating-voltages is shifted from $180°$.